

## **REMARKS**

Claims 30-60 are all the claims pending in the application, claims 1-29 having been previously canceled. Claims 30, 40, 43, 46, 49, and 51-57 are independent claims. Applicant has presented a current claim listing for the convenience of the Examiner. No amendments to the claims are currently submitted.

### **Figure for Cover Sheet**

As a preliminary matter, should the Examiner deem the claims of the present application to be allowable, Applicant respectfully requests that Figure 67 be used as the figure for the cover sheet on the issued patent. The Examiner is invited to telephone the undersigned to discuss alternative figures should it be necessary.

Applicant further notes that the application was published with the figures printed in duplicate. Applicant respectfully requests the Examiner's assistance in correcting this matter so that any patent issuing from the present application will only contain a single copy of the figures.

### **Rejections**

Claims 30-40 stand rejected under 35 U.S.C. §102(e) as being anticipated by Suzuki (U.S. patent 5,981,859). Claim 41 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of Lindemann et al. (U.S. patent 5,744,742). Claim 42 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki in view of Clark Jr., et al. (U.S. patent 4,365,533) and Wallace et al. (U.S. patent 5,095,799). Claims 43-60 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of Sgroi (U.S. patent 5,357,048).

Applicant respectfully traverses these rejections, and requests reconsideration and allowance of the pending claims in view of the following arguments.

### **Preliminary comments**

Applicant has reviewed and carefully considered the present Action. Applicant is concerned that we are now at the ninth office action for this case (previous Office Actions: 01/09/02, 07/31/02, 03/12/03, 09/02/03, 03/29/04, 07/27/04, 01/13/05, 07/07/05), but the cited references contain the same glaring deficiencies as those set forth throughout prosecution of the instant application. Applicant recognizes that the claims have been amended on several occasions to further clarify the subject matter of the inventions recited therein. However, the essence of the claimed subject matter has not changed.

Applicant has expended considerable efforts, via written communications and lengthy telephonic interviews, to explain the claimed invention to the Examiner and how it differs from the prior art. Applicant is at a loss as to how to make the points raised any clearer. In addition, Applicant has expended a significant amount of time trying to discern how the cited references have been applied to reject the claims. Similar to the previous Office Actions, the present Action offhandedly identifies a few components of a prior art reference as purportedly teaching all of the elements of the claim. Each of the last few Actions have failed to sufficiently identify the particular part relied upon. This prevents Applicant from having a fair opportunity to address the merits of the Action. How can one differentiate between a claim and the prior art when one does not know what particular feature in the prior art has been asserted?

On page 5 of the last Response in this matter, Applicant respectfully pointed out to Examiner Fletcher the requirements of MPEP 707, citing 37 CFR § 1.104(c)(2), which provides:

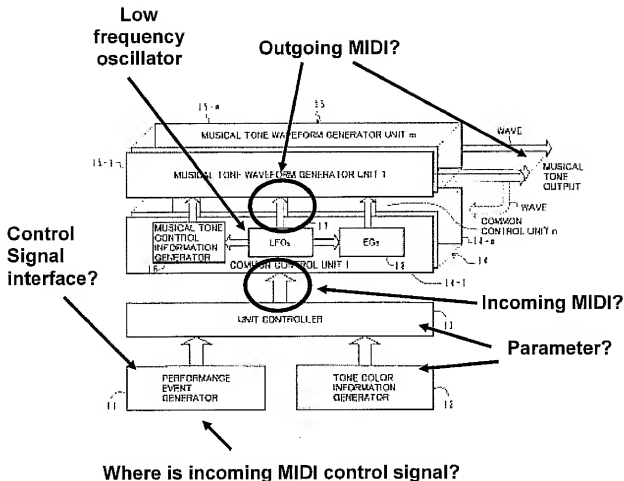
“... When a reference is complex or shows or describes other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claims specified.”

Applicant simply requested, to no avail, that Examiner Fletcher issue a rejection specifying the portions relied upon, to which Applicant could form a reasoned response.

Applicant will, once again, point out the deficiencies of the prior art cited by the Examiner. In particular, Applicant will demonstrate the many shortcomings of the Action, assorted deficiencies in the newly cited Suzuki reference, and provide reasons why the claims of the present application are patentable.

#### **Rejection Under 35 U.S.C. §102(b)**

The Examiner rejects claims 30-40 under 35 U.S.C. §102(b) as being anticipated by Suzuki. To assist understanding of the Office Action, and Applicant's comments in relation thereto, set forth below is Figure 2 of Suzuki. This Figure has been annotated with the assertions set forth in the Action.



With this understanding of the rejection, Applicant will now address the various points raised in the Action.

# 1. Action unclear as to “signal interface” relied upon in Sukuki

Independent claim 30 recites “an incoming control signal interface adapted to receive an incoming MIDI control signal.” The Examiner indicated that performance event generator 11 and network interface 56 teach the identified limitation.

Applicant first inquires: which component is being used to teach the claimed interface? Is it generator 11, or network interface 56, or some combination of these components? **Applicant**

requests clarification as to which component is being applied to Applicant's "incoming control signal interface."

## 2. Suzuki does not have an "incoming control signal interface"

To advance prosecution of this case, Applicant provides the following comments with regard to the "incoming control signal interface" limitation recited in claim 30.

First, generator 11 cannot be an "incoming control signal interface" for the basic reason that it does not receive any incoming signal, much less an "incoming MIDI control signal" as explicitly called for by claim 30. Annotated Figure 2 unambiguously shows that generator 11 provides output to unit controller 13, but this component does not receive any input. It is impossible for a component which does not receive any input to teach or suggest "an incoming control signal interface adapted to receive an incoming MIDI control signal" as recited by claim 30. On this point alone, claim 30 is patentable over Suzuki.

Second, Applicant is unable to discern how network interface 56 teaches the claimed "incoming control signal interface." Applicant has studied the Action to identify the relevance of network interface 56 since the Action failed to identify the particular location of the specification relied upon for the rejection. Applicant's review revealed that Suzuki at col. 7, lines 23-25, provides: "the network interface 56 may be a modem, an Ethernet interface, a MIDI interface, or an RS-232C interface, which enables connection to one of various networks."

Applicant concedes that network interface 56 may be a MIDI interface. However, Applicant is unable to locate any discussion in Suzuki relating to network interface 56 being "adapted to receive an incoming MIDI control signal." **Is network interface 56 for outputting MIDI signals,**

**or inputting MIDI signals? Where does Suzuki provide such teaching? Where does Suzuki state that these signals are “control signals?”**

Moreover, the Action associates network interface 56 with event generator 11. **Where does Suzuki state this association?** Applicant is unable to locate any such teaching and respectfully solicits the Examiner assistance in this matter should the rejection be maintained.

### **3. Event generator 11 does not generate MIDI signals**

Since the Action is somewhat ambiguous as to how event generator 11 is being applied to the claims of the present application, Applicant provides further that event generator 11 has absolutely nothing to do with a MIDI signal. For example, Suzuki describes event generator 11 as follows:

A performance event generator 11 generates and/or outputs a performance event, the generator being, for example, a performance operator (keyboard or the like) and/or an automatic performance apparatus (sequencer or the like). A performance event is, for example, a key-on/off event which is supplied to a unit controller 13. (Col. 3, lines 36-41) (emphasis added).

Suzuki explicitly states that event generator 11 generates a key-on/off event, but does not say anything about this key-on/off being MIDI. The stated rejection is clearly improper.

### **4. No signaling flow from unit controller 13 to generator 12**

Claim 30 recites “a controllable low frequency oscillator comprising at least one parameter, said at least one parameter comprising a value selectable from a plurality of values, wherein said value of said at least one parameter is determined by said incoming MIDI control signal.”

The Action indicated that tone color information generator 12 and unit controller 13 teach “at least one parameter” and unit controller 13 teaches an “incoming MIDI control signal.” This arrangement is physically impossible based upon the teachings of Suzuki.

Claim 30 explicitly requires “said value of said at least one parameter is determined by said incoming MIDI control signal.” Using the logic set forth by Examiner Fletcher, the at least one parameter (tone color information generator 12 and unit controller 13) is determined by said incoming MIDI control signal (unit controller 13). However, annotated Figure 2 of Suzuki shown above clearly demonstrates that the tone color information generator 12 provides input to unit controller 13, not the other way around as alleged in the Action. Applicant inquires as to how can the incoming MIDI control signal purportedly provided by unit controller 13 find its way to generator 12 when there is no signal flow from controller 13 to generator 12? The clear answer is that it doesn’t. Thus, even if generator 12 provided “at least one parameter” as the Action alleges, the at least one parameter is not determined by an incoming MIDI control signal from unit controller 13. This is because there is no signal flow from generator 13 to generator 12.

## **5. Unit controller 13 does not generate MIDI**

Claim 30 recites “said value of said at least one parameter is determined by said incoming MIDI control signal.” The Action indicated that unit controller 13 teaches an “incoming MIDI control signal.” This assertion is also impossible, based upon the teachings of Suzuki, for at least two reasons.

First, unit controller 13 does not provide MIDI signals. Suzuki clearly defines the output provided by unit controller 13 as: “The unit controller 13 generates a control parameter in accordance with a performance event and tone color information, and supplies it to one of a

plurality of common control units 14.” (Col. 3, 49-51) (emphasis added). This control parameter is not an “incoming signal,” nor a “MIDI control signal.” Suzuki makes no mention that the “control parameter” is MIDI. This is just another example of the many limitations which Examiner Fletcher has (improperly) read into the reference. **Accordingly, Applicant respectfully requests the Examiner to please identify where Suzuki teaches that the control parameters provided by controller 13 are MIDI, and how such signals are “incoming.”**

#### **6. Examiner’s arrangement of controller 13 and generator 11 contradicts Suzuki teachings**

Claim 30 recites “an incoming control signal interface adapted to receive an incoming MIDI control signal.” Examiner Fletcher indicated on page 2 of the Action that generator 11 teaches an “interface” and the incoming MIDI control signal is provided by unit controller 13. A casual look at Figure 2 of Suzuki shows this to be impossible. Signaling is from generator 11 to controller 13. The Examiner implies that the opposite is true; signaling is from controller 13 to generator 11. **Assuming *arguendo* that controller 13 provides a MIDI control signal, Applicant inquires as to how can generator 11 serve as an incoming control signal interface adapted to receive an incoming MIDI control signal when this MIDI control signal never reaches generator 11?**

#### **7. LFO 17 does not generate MIDI signals**

Claim 30 recites “wherein said controllable low frequency oscillator is adapted to generate an outgoing MIDI control signal.” Examiner Fletcher indicated that LFO 17 of Suzuki provides the requisite outgoing MIDI control signal, but in direct contradiction of MPEP 707 and 37 CFR § 1.104(c)(2), does not indicate the particular portion of Suzuki which indicates that LFO 17 generates an outgoing MIDI control signal.



A careful reading of Suzuki reveals that the outputs of the LFOs 17 are directed to the musical tone waveform generator units (15-1 through 15-m), which in turn create outgoing musical tone outputs. These outgoing musical tone outputs are not MIDI. The LFOs 17 are not generated as MIDI, converted to MIDI, or exported as MIDI. MIDI is discussed in the opening of the patent in the context of undesirable prior art (col. 1, lines 35-46), and in vague mention with regard to a software implementation depicted in Figure 6 (col. 7, lines 23-25). However, nowhere within these passages are outputs of the LFOs 17 described, included, nor implied. **Should the rejection be maintained, Applicant requests identification of the portions of Suzuki being relied upon for teaching of an LFO adapted to generate an outgoing MIDI control signal.**

#### **8. Conclusion with regard to Suzuki**

In view of the foregoing, Suzuki fails to teach or suggest many features recited in independent claim 30, and therefore this claim is believed to be patentable. Since independent claim 40 has language similar to that of claim 30, this claim is also believed to be patentable for reasons similar to those set out in conjunction with claim 30. For example, the arguments with regard to the low frequency oscillator of claim 30 may analogously be applied to the envelope generator of claim 40. In addition, dependent claims 31-39 are also patentable at least by virtue of their dependence on patentable independent claim 30.

#### **Rejection Under 35 U.S.C. §103(a) as being unpatentable over Suzuki, Lindemann, Clark Jr., and Wallace**

The Examiner rejects claim 41 under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of Lindemann, and claim 42 under 35 U.S.C. § 103(a) as being unpatentable over Suzuki in view of Clark Jr. and Wallace. Applicant has demonstrated above that Suzuki does not

teach or suggest various features recited in claim 40. Applicant further submits that none of Lindemann, Clark Jr., or Wallace supply any of the deficiencies of Suzuki. Therefore, for the reasons presented above, even if one skilled in the art were to combine the teachings of the identified references in the manner asserted, claims 41 and 42 would be patentable at least by virtue of their dependency upon patentable independent claim 40.

**Rejection Under 35 U.S.C. §103(a)**  
**as being unpatentable over Suzuki and Sgroi**

The Examiner next rejects claims 43-60 under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of Sgroi. Applicant has reviewed the Action, and in particular the portions relating to Sgroi teaching first and second incoming MIDI control signals. The stated rejections are concerning.

**9. Unjustified prosecution delay**

Applicant has personally discussed, at great length, the Sgroi patent with the Examiner. It has long been settled in the drawn out prosecution of the present application that Sgroi does not provide the required MIDI control signals. For instance, in the Office Actions of January 13, 2005, and July 7, 2005, which were both authored by the same Examiner of the present Action, Examiner Fletcher acknowledged that Sgroi does not provide the requisite MIDI input.

The relevant passage of page 4 of the January 13, 2005, Office Action states:

Sgroi does not disclose that the control signal generator is one of transient or low frequency oscillator. Sgroi does not provide MIDI input.

The relevant passage of page 6 of the July 7, 2005, Office Action states:

Sgroi does not disclose a plurality of MIDI inputs.

However, Fay (2002/0124715) discloses a plurality of MIDI inputs (fig. 3) which are controlled through a processor (mapping component), wherein the inputs are synthesized as group through synthesizer (210).

Applicant is at a loss as to why issues which have long been settled (Sgroi does not teach the required MIDI signals), are resurfacing in a manner which unjustifiably delays prosecution.

**10. Sgroi does not provide requisite MIDI control signals**

Applicant has demonstrated in previous communications that Sgroi does not provide the requisite MIDI control signals. The Examiner agrees with Applicant on this point, as evidenced by the forgoing passages from previous Office Actions. It is conspicuous indeed that page 6 of the present Action fails to identify the portions of Sgroi relied upon to teach the “second incoming MIDI control signal” limitation. Applicant submits that Sgroi does not teach or suggest the various “MIDI control signal” limitations recited in independent claims 43, 46, 49, and 51-57. **In the event these rejections are maintained, Applicant requests that the Examiner identify the specific portions of Sgroi which purportedly provide the “MIDI control signal” teachings.**

**11. Suzuki does not provide MIDI**

Applicant has demonstrated above with regard to independent claim 30 that Suzuki does not teach or suggest incoming or outgoing MIDI control signals. Because of this significant deficiency, Suzuki cannot therefore teach the various “MIDI control signal” limitations recited in independent claims 43, 46, 49, and 51-57.

## **12. Rejection does not address claims 51-60**

Applicant has carefully reviewed the Action, and is unable to identify any discussion with regard to various claim limitations of claims 51-57. For instance, which portion of either Suzuki or Sgroi purportedly teach “obtaining a MIDI note number value,” “obtaining a MIDI note velocity value,” obtaining a MIDI continuous controller value,” “obtaining an incoming MIDI continuous controller value,” “obtaining an incoming MIDI note number value.” Because the Action fails to state the rejection to the claims, Applicant has been deprived a fair opportunity to respond.

In the last response in this matter (Response, pg. 6, filed October 7, 2005), Applicant respectfully requested that Examiner Fletcher provide sufficient information with regard to the rejection of these claims so that Applicant can formulate a reasoned response. It appears the Examiner is under the assumption that this is not a requirement. See Office Action, pg. 7, issued January 11, 2006, which provides:

“The applicant argues that each claim is not identified in the rejection to claims 43-60. There is no requirement to identify each element with each claim, especially in a case where the claims are written in a manner to repeat language or vaguely change the language. All of the limitations of the claims are met by references applied in the rejection.”

Applicant requests that Examiner Fletcher: (a) identify the particular part of the reference relied upon to reject each claim limitation; (b) provide authority which allows an Examiner to reject a claim without identifying the claim element and the portion relied upon for the rejection; or (c) withdraw the rejection to the identified claims.

### 13. Multiplication is not “fast adding”

With regard to claim 43, as Applicant can best understand the rejection, the Examiner appears to maintain the notion that multiplication is “fast adding.” Applicant is a recognized expert in the technological field to which the present application pertains. However, Applicant has never seen any reference which supports that the notion that in the realm of processing control signals, multiplication is simply “fast adding.”

As an example, multiplying a signal value by 0.707 is not “fast adding.” As another example, the quantity  $x^2$  is not  $x$  “fast-added” to itself  $x$  times. Furthermore, multiplying is not implemented in either analog or digital circuitry, for example, using an adder or some notion of “fast adding.” Applicant recognizes that the phrase “fast adding” is a great learning tool for initial exposure to arithmetic multiplication tables, but has absolutely nothing to do with, for example, scaling a signal or parameter value by fractional multiplicative factors. The accumulation or summing which Suzuki purportedly provides cannot be equated to the “multiplying” recited in the identified claim.

### 14. Still further deficiencies of Suzuki

Applicant has reviewed Suzuki and discovered a number of deficiencies; a representative sampling is as follows:

- Figures 2, 9, 11-13 and associated text absolutely do not show or describe first or second incoming MIDI signals;
- Col. 11, line 39 – col. 12 line 9, absolutely do not show or describe adding, “fast adding,” or multiplying;

- Col. 12, lines 10-14, describe the generation of an outgoing analog audio signal, not an outgoing MIDI control signal (MIDI being a digital signal); and
- Figure 9 does not show a third incoming control signal.

## **15. Conclusion with regard to Suzuki and Sgroi**

In view of the foregoing, Suzuki and Sgroi each fail to teach or suggest many features recited in independent claims 43, 46, 49, and 51-57, and therefore these claims are patentable. In addition, dependent claims 44, 45, 47, 48, 50, 58-60 are also patentable at least by virtue of their dependence on their respective patentable independent claims.

## **16. Summary**

Applicant has identified a number of deficiencies of the asserted references, and has provided assorted comments with regard to the patentability of the currently pending claims of the present application. In the event Examiner Fletcher continues to maintain the rejections, Applicant respectfully requests that the Examiner respond to each of the points raised by Applicant in order to clarify the issues for the BPAI.

## **CONCLUSION**

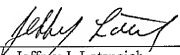
In light of the above remarks, Applicant submits that the present Response places all claims of the present application in condition for allowance. Reconsideration of the application is requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California, telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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